Workforce & Wage Analysis

MidAmerica
Industrial Park

July 2025

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Produced For

MidAmerica INDUSTRIAL PARK

Produced By

SITE SELECTION GROUP

Executive Summary

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Workforce Analysis Overview

MidAmerica Industrial Park ("MAIP") is Oklahoma's largest industrial park. Encompassing more than 9,000 acres and housing Fortune 500 companies like Google, Chevron, and International Flavors & Fragrances, and Amcor, among other manufacturers and logistics operations, the park is an industrial powerhouse of northeast Oklahoma. Situated between Tulsa and Northwest Arkansas, the largest concentration of corporate wealth in the nation, MidAmerica provides unique economic development advantages

To ensure that the park is able to best recruit new businesses, along with supporting the workforce needs of existing ones, MAIP engaged Site Selection Group ("SSG"), a location advisory firm, to conduct a labor market assessment of the region surrounding the park. Site Selection Group had previously conducted labor analyses for MAIP in 2017 and 2020. This analysis updates and adds to those previous analyses.

Approach & Structure of Report

Site Selection Group uses the same methodology herein that we would use if we were evaluating a site for a corporate user. While a variety of specific data points are considered throughout, the key labor market data can be grouped into three primary categories:

- Commuting & Demographics: Define the realistic labor shed from which current and future employers in MAIP can reasonably expect to draw workers. Then, evaluate the baseline demographic indicators within that labor shed, including total population and workforce availability, projected growth, socio-economic characteristics commonly aligned with industrial workforce needs, and other relevant factors.
- Industrial Labor Dynamics:. Using Standard Occupational Classification (SOC) codes, define the typical skill sets required for industrial projects—such as production, logistics, maintenance, engineering, and professional support roles. Then, assess the presence, concentration, and growth trends of these worker types within the region. Additionally, analyze competitive dynamics through job posting activity to understand demand pressure. Finally, use a range of data sources to estimate market wages for these key positions.
- Other Factors: Finally, look at other data that doesn't neatly fit into those two previous categories but nevertheless, has an impact on corporate retention and recruitment. Namely, that includes data on organized labor and educational completions.

Methodology

Site Selection Group uses a number of data sources in this evaluation:

- Secondary Data Sources: We use a number of best-in-class publicly available and subscription-based databases in this analysis. Key sources include the Bureau of Labor Statistics, the U.S. Census Bureau, Experian, and Lightcast.
- Employer Driven Primary Data: Fortunately, the MAIP team was also able to provide SSG with recently collected survey data from a number of employers within MAIP. Eleven employers provided detailed information for more than 1,300 employees within the park. Key data points that we use throughout this report include:
    - Commute Data: Home ZIP codes of workers.
    - Job Titles: SSG categorized these into key occupational categories like Production, Maintenance, Logistics, and similar.
    - Job Tenure and Age
    - Wage & Salary

This data allows SSG to provide much more detailed analyses, especially as it relates to commuting partners for different types of workers at different wages levels. Please note that we have taken care not to reveal any confidential, or company specific data in this report - all is reported in aggregate.

Overall, the data presented herein focuses on the labor shed surrounding MAIP, with comparisons to U.S. and state-level benchmarks where appropriate. This report does not include a comparative analysis of MAIP against other industrial parks in the region.

Summary of Results

Category	Description	Key MAIP Strengths	Key MAIP Challenges
1. Commuting & Demographics			
A) Commuting	Realistic labor draw from which existing and future MAIP employers can expect to attract workers from.	✓ Ability to draw salary workers and higher earning wage earners from Tulsa (higher wages are associated with longer commutes)	✗ Vast majority of wage earners live near MAIP, specifically in Pryor. Drawing wage earners from further away may be a challenge.
B) Population & Labor Force	Underlying population and labor force statistics that underly workforce availability.	✓ High number of people and workers in greater Tulsa. ✓ Higher labor force participation in county but may be a data aberration.	✗ Small number of people and workers in 20-minutes around MAIP. ✗ Lower unemployment points to tight labor market.
C) Target Demographics	Age, income and educational attainment and alignment with industrial requirements.	✓ Favorable age profile and especially proportion of population under 18 in broader labor shed. ✓ Aligned education and income levels for many industrial requirements.	✗ Lower proportion of people with bachelor's and above degrees for higher impact requirements.
2. Industrial Labor Dynamics			
A) Supply	Sheer presence of target workers, along with concentration and growth patterns.	✓ Very strong concentration of key production clusters, especially Metal & Plastic and Chemical workers. ✓ High numbers of workers, especially at 40- and 60-minutes. ✓ Favorable growth projections for all clusters.	✗ Lower sheer numbers of workers in the immediate area surrounding MAIP> ✗ Lower levels of professional support workers (e.g. Business & IT) that can be more important for advanced operations.
B) Competition & Demand	Relative competition for workers based on job postings analysis.	✓ Decreasing demand levels over the past year compared to the U.S. based on job postings analysis.	✗ Higher levels of demand for engineering talent. ✗ Not unique to MAIP, but competing for and hiring qualified industrial workers continues to be a challenge in many markets.
C) Wage & Salary	Market wage and salary levels based on multiple sources.	✓ Lower wages compared to U.S. average and compared to SSG's experience - supported by survey data and secondary sources.	✗ No major challenges, although employers that want to draw from Tulsa and surrounding communities may need to increase wages. ✗ Much higher wages in Tulsa and Claremore may make it difficult to keep workers in MAIP, especially those commuting from Tulsa.
3. Other Factors			
A) Organized Labor	Presence and activity of organized labor in the region.	✓ Low organized labor presence in Tulsa and in Oklahoma more generally. ✓ Right-to-work status.	✗ No major challenges.
B) Workforce Training	Count and trend of target completions (e.g. degrees, certificates, and diplomas) for key industrial programs.	✓ Very large number of completions in metal working, especially welding. ✓ Large number of maintenance and engineering technology completions	✗ Decrease in recent years in Electromechanical and QC completions, but appears to be only from one institution, privately run Spartan College of Aeronautics.

1. Commuting & Demographics

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1. Commuting & Demographics: Summary

Objective

- Realistic Labor Shed: Define the realistic labor shed that current and potential employers in MAIP can reasonably expect to draw workers from.
- Sheer Labor Draw: Within that labor shed, describe high-level indicators of labor availability. That includes factors like population, labor force, unemployment, and other data points.
- Demographic Alignment: Examine socio-economic characteristics of that population and labor force, namely, age, education, and income levels. Further, describe overall demographic alignment for different types of manufacturing (e.g. more traditional manufacturing requirements may align better with lower educational and income requirements, but more advanced requirements typically align better with higher education and income levels). All types of requirements typically prefer a younger workforce.

Methodology

- Commuting: Because the MAIP team was able to collect detailed data from employers on commuting patterns, we are able to conduct a commuting analysis based on real-time information, rather than secondary sources.
- Demographic Data: Use best-in-class data sources from BLS, Census, and Experian to describe the workforce
- Comparative: Where appropriate, compare data for the MAIP labor shed against national and/or state averages.

Results

Key Strengths

- ✓ Potential to pull workers (especially salary and higher earning workers from Tulsa).
- ✓ Higher wages are associated with slightly longer commute times for wage earners.
- ✓ Very large population at broader drive times.
- ✓ Favorable age profile and higher percentage of people under 18 for future workforce.

Challenges

- ✗ The vast majority of wage earners live much closer to MAIP - drawing wage earners from higher populated areas will continue to be a challenge.
- ✗ Data supports concerns that workers living closer to Tulsa may be searching for jobs to reduce their commute - longer tenured wage earners tend to live closer to MAIP.
- ✗ Small number of workers and people immediately around the park.
- ✗ Lower proportion of people with Bachelor's and higher degrees around the park.
- ✗ Lower unemployment means less slack.

Commuting Summary

Commuting Times: By Key Occupational Categories

	Wage Workers (Overall)	Production	Logistics	Maintenance	Quality	Technician - Engineer	Salary Workers (Overall)	Supervisors
20th percentile	9.8 mins.	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Median	21.1	21.1	21.1	21.1	21.1	26.9	28.6	21.1
80th percentile	36.4	39.6	30.6	36.4	39.6	35.1	44.8	32.9

Percentage of Workers Commuting at Key Distances

	Wage Workers (Overall)	Production	Logistics	Maintenance	Quality	Technician - Engineer	Salary Workers (Overall)	Supervisors
Less than 10 mins.	37.1%	34.4%	40.0%	31.6%	35.9%	25.0%	25.7%	34.5%
10-20 mins.	9.4%	10.7%	7.3%	10.5%	2.6%	10.0%	2.7%	3.4%
20-30 mins.	21.7%	22.3%	26.4%	19.7%	30.8%	20.0%	17.3%	27.6%
30-40 mins.	16.4%	15.9%	14.5%	25.0%	10.3%	32.5%	18.6%	20.7%
More than 40 mins.	15.4%	16.7%	11.8%	13.2%	20.5%	12.5%	35.8%	13.8%

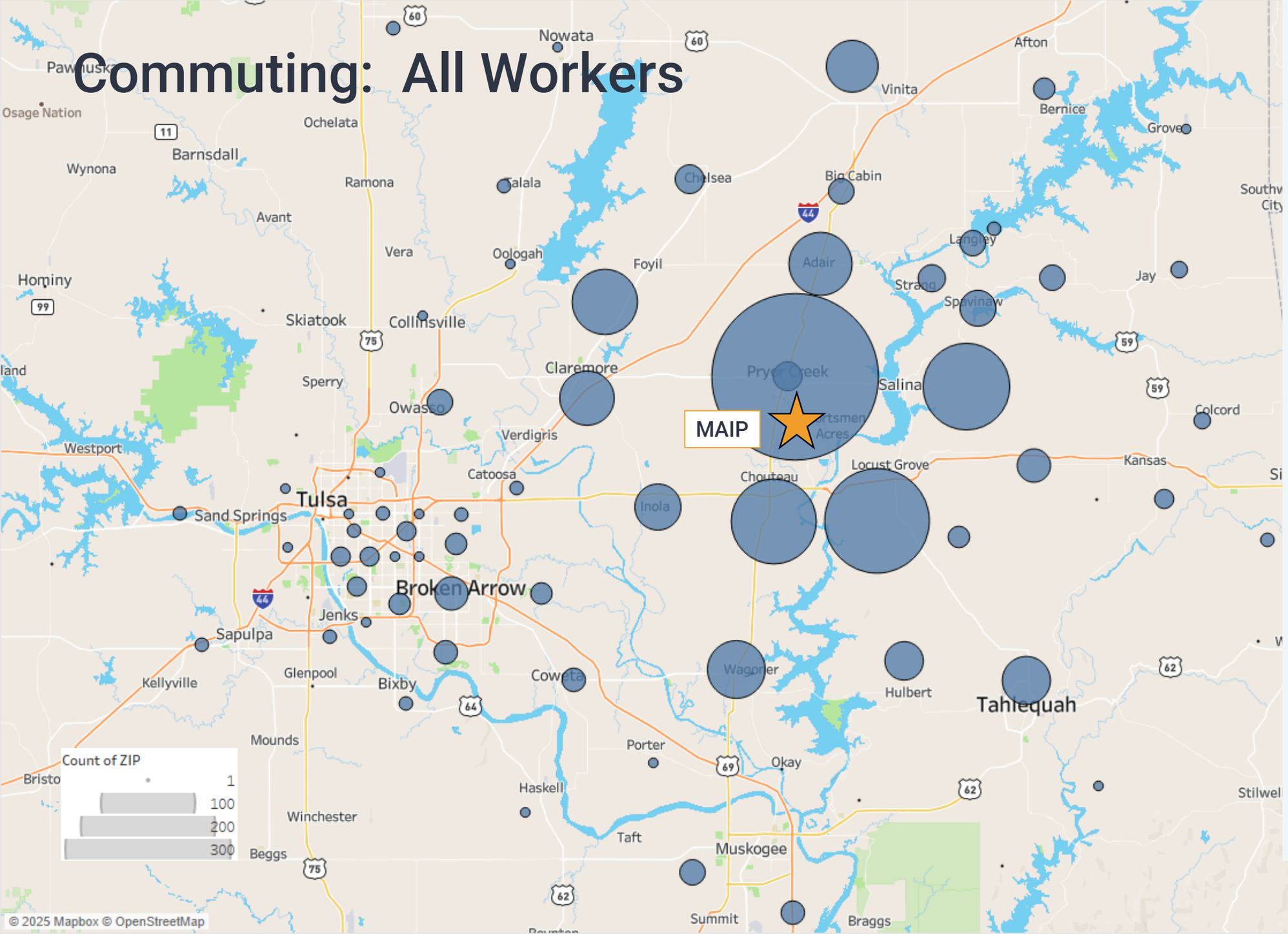
Reading the Graphic

- The tables at left show summary commuting statistics for key occupational groups working in MAIP.
- For example, the first table shows that the median commute time for wage workers is 21.1 minutes, while the median for salary workers is 28.6 minutes.
- The second table shows the percentage of workers in each category by commute distance.
- *Source: MAIP employer data.*

Key Takeaways

- This follows the typical trend we see for industrial workforces, with about half of workers within that 20-minute drivetime target, and 80% of workers within a 35-40-minute drivetime.
- A very large proportion of wage earners are very close to MAIP, that is, living in Pryor or thereabouts.
- Salary workers are commuting further, with a median travel time of nearly 30 minutes, but a large share also commuting closer to 45 minutes.

Commuting: All Workers



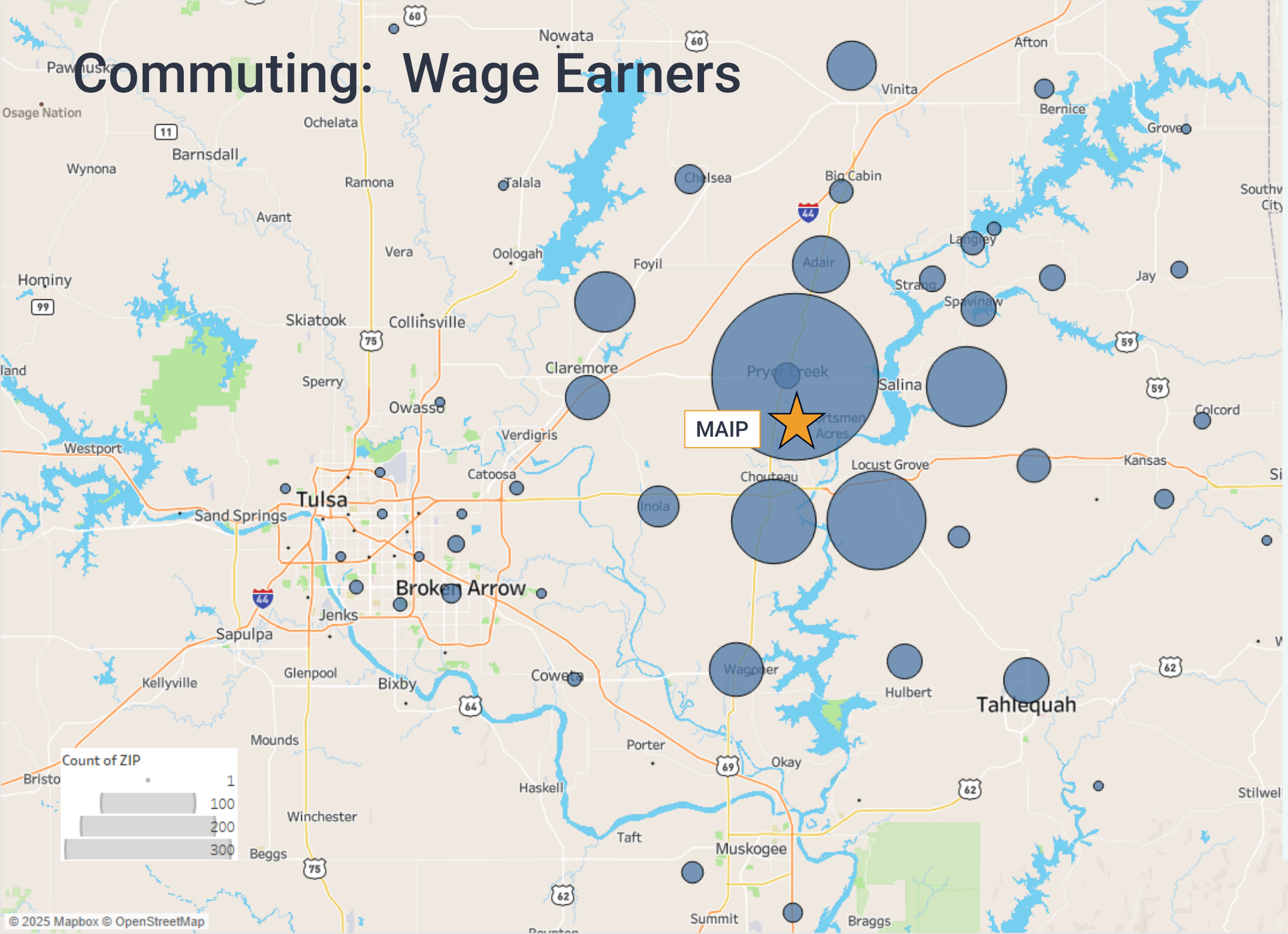
Reading the Graphic

- The map at left shows home ZIP codes of workers in MAIP. Bubbles are sized by count of employees living in those ZIP codes.
- *Source: MAIP employer data.*

Key Takeaways

- A very large number of workers in MAIP are from Pryor and surrounding rural communities.
- However, the data also show a fair number of workers commute from more populated areas in and around Tulsa.

Commuting: Wage Earners



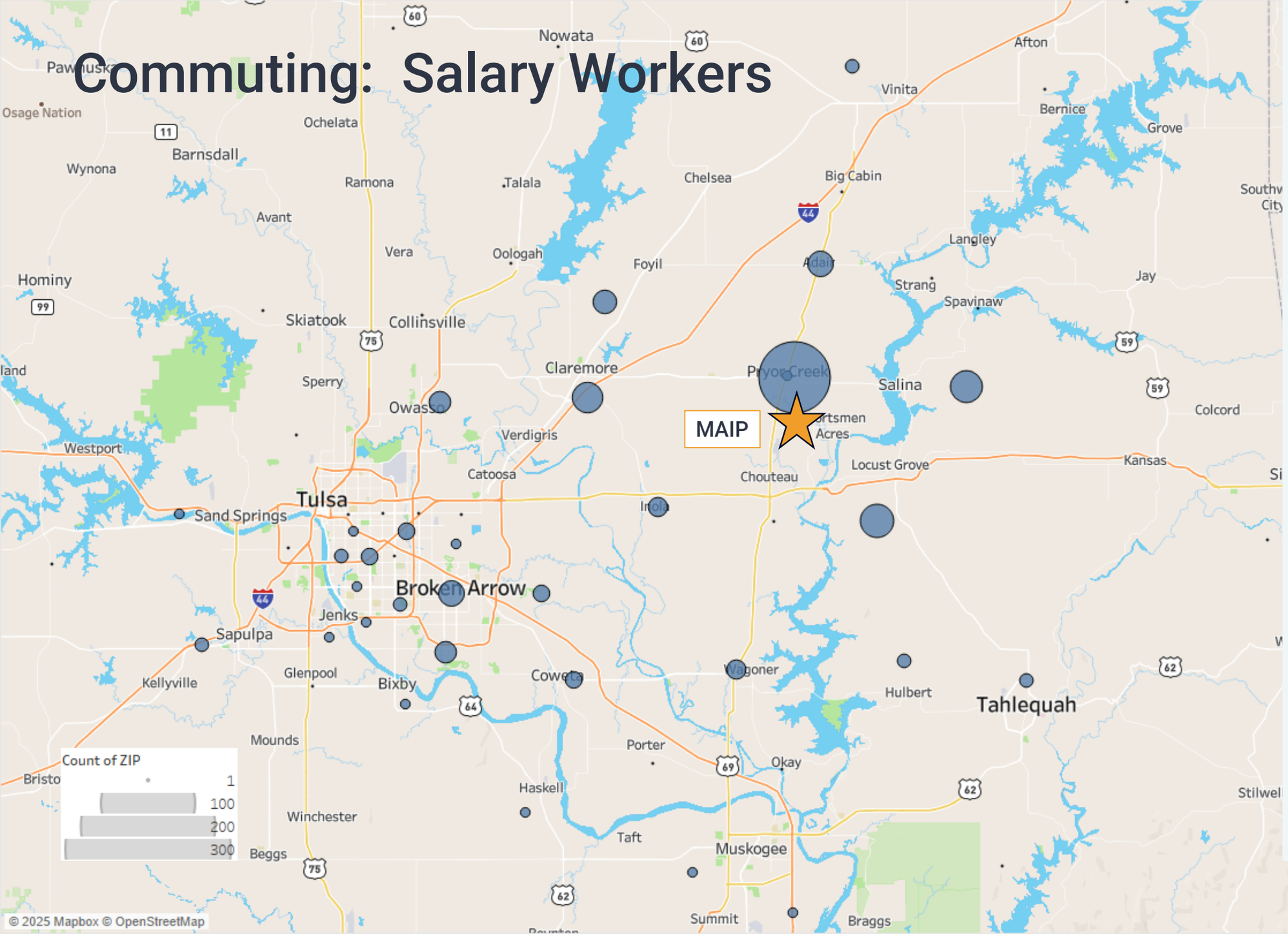
Reading the Graphic

- This map filters the previously shown data, now showing the home ZIP codes of only wage earners.
- *Source: MAIP employer data.*

Key Takeaways

- Again, the vast majority of wage earners employed in MAIP are located in communities like Pryor and similar (rural communities east of Tulsa).
- Far fewer wage earners commute from larger communities like Tulsa and Broken Arrow.

Commuting: Salary Workers



Reading the Graphic

- This map filters the previously shown data, now showing the home ZIP codes of only salary earners.
- *Source: MAIP employer data.*

Key Takeaways

- Here, we see that a much larger proportion of salary workers commute from Tulsa and surrounding suburbs.
- However, a fair share still live in those rural communities in and around Pryor.

Commuting by Age and Tenure

Average Commuting Times: By Worker Age & Occupational Category

	Wage Workers (Overall)	Production	Logistics	Maintenance	Quality	Technician - Engineer	Salary Workers (Overall)	Supervisors
18-25 years	23.5 mins.	25.3	17.9	18.8	22.9	29.1	39.2	--
26-35 years	22.6	23.3	23.5	19.5	27.2	20.3	33.7	18.5
36-45 years	22.8	22.1	25.4	27.0	23.5	26.4	30.2	25.5
46-55 years	24.2	23.5	20.9	26.1	25.9	26.0	35.1	21.5
55 years+	22.9	24.7	20.0	25.0	21.7	27.0	27.5	28.6

Average Commuting Times: By Worker Tenure & Occupational Category

	Wage Workers (Overall)	Production	Logistics	Maintenance	Quality	Technician - Engineer	Salary Workers (Overall)	Supervisors
Less than 1 Year	25.5 mins.	26.3	24.8	20.8	18.4	26.0	39.5	--
1 to 2 years	25.5	28.8	21.4	26.2	22.1	21.1	33.8	31.4
2 to 5 years	23.4	22.3	22.4	26.5	23.7	28.9	37.6	25.9
5 to 10 years	24.2	24.6	24.5	21.7	24.4	25.6	32.8	27.9
10 years +	21.3	20.8	18.0	24.0	27.8	26.4	26.2	23.9

Reading the Graphic

- The tables show average commute times by occupational category and then cross tabbed by age and tenure.
- *Source: MAIP employer data.*

Key Takeaways

- There's mixed results on the age side (e.g. younger wage earners commuting similar distances to older workers).
- On the tenure side, we see a more interesting relationship, with shorter tenured workers commuting, on average, shorter distances than longer-tenured employees. This, in part, corroborates anecdotal feedback we've heard from employers and staffing agencies that it can be hard to keep employers commuting from communities like Tulsa from ultimately taking jobs closer to home.

Commuting by Wage & Salary

Average Commuting Times: By Wage Level

	Wage Workers (Overall)	Production	Logistics	Maintenance	Quality	Technician - Engineer
Less than $16.50	19.3 mins.	20.5	19.4	30.6	9.8	--
$16.50 - $20.00	22.8	23.3	19.6	33.6	20.8	26.4
$20.00 - $25.00	26.1	27.1	23.2	19.8	25.7	24.4
$25.00 - $30.00	22.7	23.3	23.6	24.9	20.1	9.8
More than $30.00	24.0	22.8	19.4	24.5	24.9	24.1

Average Commuting Times: By Salary Level

	Salary Workers (Overall)	Supervisors
Less than $50k	27.7 mins.	20.5
$50k - $75k	29.1	25.3
$75k - $100k	31.2	25.2
$100k - $125k	29.3	21.9
More than $125k	35.6	19.4

Reading the Graphic

- The tables at left shows average commute times for wage and salary workers by key compensation levels.
- *Source: MAIP employer data.*

Key Takeaways

- Not surprisingly, lower earners tend to commute shorter distances to MAIP compared to higher earning workers.
- However, that relationship starts to break down at much higher hourly rates. For example, workers earning between $25.00 & $30.00/hour commute similar distances to those earning $16.50 to $20.00/hour.
- We see a similar relationship among salary workers, with lower earners commuting shorter distances, and much higher earning workers traveling much further. However, results amongst middle-earning workers is very similar, with those categories commuting, on average, 30 minutes.

Demographics: Population & Socioeconomic Status

	MAIP - 20 Minutes	MAIP - 40 Minutes	MAIP - 60 Minutes	Oklahoma	U.S.
Population	29,716	352,119	1,107,239	4,006,877	335,480,631
5 Year Projected Population Growth	1.3%	1.9%	2.0%	1.35	2.19
Total in Labor Force	13,229	171,917	547,834	1,936,449	172,101,641
% Age Under 18	24.2%	24.6%	23.9%	23.7%	21.7%
% Age 18-24	8.6%	9.3%	9.5%	10.1%	9.5%
% Age 25-34	13.1%	14.0%	13.6%	13.4%	13.7%
% Age 35-44	12.2%	13.3%	13.1%	13.0%	13.1%
% Age 45-54	12.0%	11.6%	11.7%	11.4%	12.2%
% Age 55+	30.0%	27.0%	28.0%	28.4%	29.9%
Median Age	38	37	37	37	39
% Less than High School Graduates	10.4%	12.8%	10.2%	11.0%	10.8%
% High School Graduates (or GED)	38.7%	32.9%	28.8%	30.6%	26.2%
% Some College, no degree	24.1%	23.0%	22.7%	22.6%	19.7%
% Associate's Degree	10.2%	9.3%	9.1%	8.3%	8.8%
% Bachelor's Degree	12.5%	15.3%	19.4%	18.0%	21.1%
% Post Bachelor's Degree	4.2%	6.8%	9.8%	9.6%	13.5%
% Household Income less than $15,000	9.6%	9.9%	9.7%	10.3%	8.6%
% Household Income $15,000 to $24,999	10.4%	8.8%	8.0%	8.7%	6.8%
% Household Income $25,000 to $34,999	9.6%	9.6%	8.9%	9.1%	7.2%
% Household Income $35,000 to $49,999	12.5%	13.6%	12.6%	12.6%	10.3%
% Household Income $50,000 to $74,999	18.7%	19.3%	18.4%	18.3%	15.8%
% Household Income $75,000 to $99,999	13.6%	13.4%	13.1%	13.3%	13.2%
% Household Income $100,000 to $124,999	11.0%	9.9%	9.7%	9.4%	10.4%
% Household Income $125,000 to $149,999	5.8%	5.7%	6.2%	6.0%	7.4%

Reading the Graphic

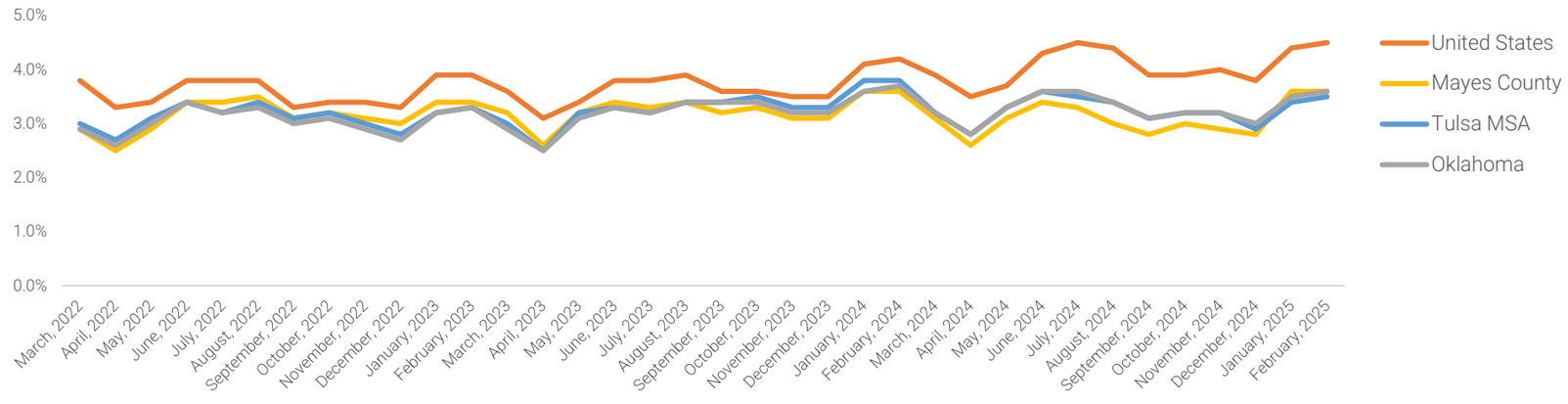
- The table at left shows key demographic variables for three drivetimes around MAIP, along with comparative statistics for Oklahoma and the U.S. overall.
- *Source: Experian, U.S. Census Bureau, and Lightcast.*

Key Takeaways

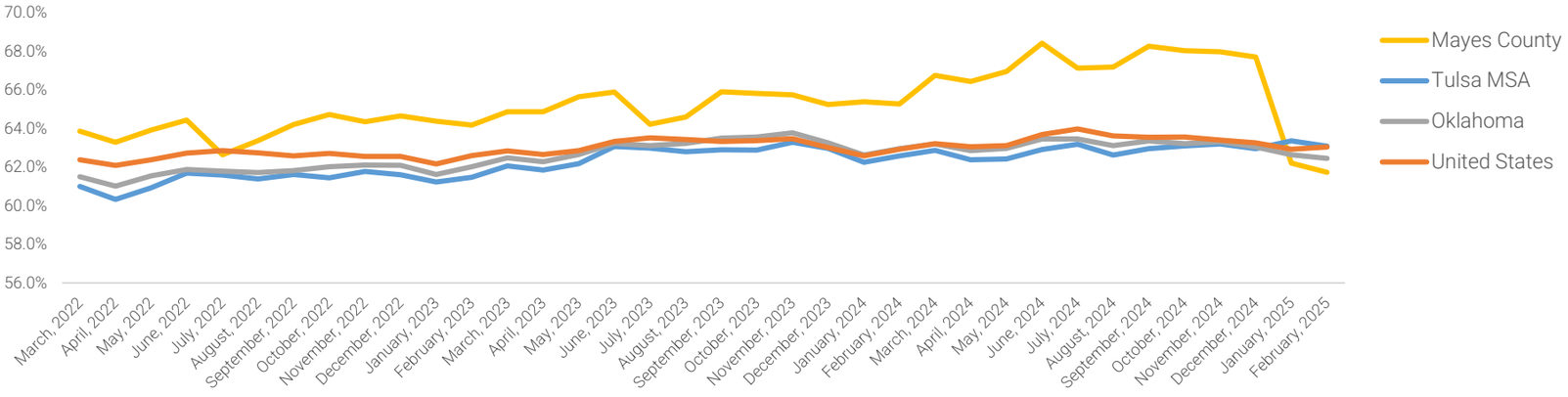
- Population & Growth: While the population immediately around MAIP is small, there are a much larger number of workers at those broader 40- and 60-minute drivetimes.
- Age: Median age around MAIP is generally aligned with state and national averages. Overall, there's a high proportion of people under the age of 18, which is favorable for future workforce.
- Education: There's a higher proportion of people with high school, some college, or associate's degrees around MAIP which can be better aligned with manufacturing requirements. However, there is a much lower proportion of individuals with bachelor's and above immediately around the park, which may be a concern for more advanced requirements.
- Income: Income levels are generally aligned with state and U.S. levels.

Demographics: Unemployment & Labor Force Participation

Unemployment Rates: Past Three Years



Labor Force Participation: Past Three Years



Reading the Graphic

- The first graphic at left shows unemployment for Mayes County (home of MAIP), the Tulsa metro area, Oklahoma, and the U.S. overall. The second shows labor force participation for those three areas.
- *Source: BLS (LAUS & CPS), via Lightcast.*

Key Takeaways

- In general, unemployment in Mayes County, Tulsa, and Oklahoma have been very similar over the past three years and below the national average. While those figures indicate strong macro-economic conditions, it also signals that it can be difficult to hire workers in those areas.
- Labor force participation has been roughly similar in Tulsa, Oklahoma, and the U.S. over the past three years. However, labor force participation has been higher in Mayes County before falling sharply at the end of 2024. Typically, this means that BLS has made some type of adjustment to their modeling of labor force participation in smaller geographies, rather than a fundamental shift. As a result, we would not draw any major conclusions from this data.

2. Industrial Labor Dynamics

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2. Industrial Labor Dynamics: Summary

Objective

- Industrial Labor Dynamics: Examine supply and demand metrics within the target labor shed, along with wage dynamics for key occupational clusters typically required for industrial requirements. Those include:
  - Production Workers
  - Logistics
  - Maintenance
  - Engineering & Engineering Tecs
  - Professional Support

Methodology

- Supply: Analyze the sheer labor supply (count of workers), relative concentration, and growth trends for each target cluster, and review presence of any highly specialized skill sets in the labor shed. Data is primarily from Lightcast.
- Demand: Use job postings analytics to determine relative levels of competition for workers. Data is primarily from Lightcast.
- Wages:
  - Traditional Data: Use traditional wage data bases to examine typical wage levels for those key clusters. Data is from Lightcast and ERI.
  - Primary Data: But also use survey data provided by companies to compare against "off-the shelf" sources. Further, cross-tab survey data to better describe existing wage levels by commute, tenure, and age.
- Comparative: Where appropriate, compare data for the MAIP labor shed against national and/or state averages.

Results

Key Strengths

- ✓ Very high concentration of key industrial skill sets, especially for production workers, and specifically workers in chemicals, metals & plastics, and similar.
- ✓ Very high number of target workers especially at larger drivetimes (40- and 60-minutes) that get further into metro Tulsa.
- ✓ Favorable growth projections of occupational clusters.
- ✓ Falling levels of demand based on job postings analysis compared to national levels.
- ✓ Still low wages compared to other markets, although target wages depend heavily on skill requirements.

Challenges

- ✗ Lower sheer number of workers especially in the immediate area (e.g. 20-minutes) surrounding MAIP.
- ✗ Lower concentration and presence of support workers for manufacturing, namely Business and IT.
- ✗ High levels of competition for Engineers.

Supply vs. Demand Summary

SUPPLY	20-Minute DT			40-Minute DT			60-Minute DT		
	Count of Workers	Concentration (1.00 = Natl. Avg.)	Projected Growth	Count of Workers	Concentration (1.00 = Natl. Avg.)	Projected Growth	Count of Workers	Concentration (1.00 = Natl. Avg.)	Projected Growth
All Production	1,608	2.67	6.13%	16,384	1.65	3.87%	36,833	1.29	3.19%
Business	438	0.65	11.64%	8,615	0.78	7.69%	28,404	0.90	6.49%
Chemical	593	3.36	7.28%	4,478	1.54	5.76%	10,052	1.20	4.46%
Engineering	133	1.15	14.43%	2,780	1.47	9.54%	5,743	1.06	7.37%
Foundry	140	6.58	3.85%	612	1.75	4.21%	1,221	1.22	5.99%
IT	237	0.59	23.85%	4,318	0.65	11.45%	12,224	0.64	9.70%
Logistics - Material Moving	700	1.28	10.74%	13,493	1.49	7.64%	27,656	1.06	5.71%
Logistics Support	140	1.10	8.88%	2,737	1.31	6.29%	6,108	1.02	4.04%
Maintenance	479	1.80	9.06%	6,114	1.40	7.63%	15,561	1.24	5.56%
Metals & Plastics	1,015	2.97	7.24%	11,821	2.10	4.45%	25,184	1.56	3.71%
Paper	498	4.83	4.45%	2,802	1.65	4.00%	6,869	1.41	3.21%
Supplemental	931	1.07	1.54%	14,068	0.98	0.57%	44,289	1.08	-0.48%

DEMAND	20-Minute DT			40-Minute DT			60-Minute DT		
	Total Postings	Posting Intensity	Postings/ Relevant Workforce	Total Postings	Posting Intensity	Postings/ Relevant Workforce	Total Postings	Posting Intensity	Postings/ Relevant Workforce
All Production	486	2.8	30.2%	4,715	3.4	28.8%	17,568	3.5	47.7%
Business	96	2.0	22.0%	1,690	2.7	19.6%	8,508	2.9	30.0%
Chemical	215	2.8	36.3%	1,875	3.4	41.9%	7,126	3.6	70.9%
Engineering	182	2.4	137.1%	1,512	2.7	54.4%	6,060	2.9	105.5%
Foundry	20	2.7	14.1%	74	2.7	12.1%	191	2.9	15.7%
IT	82	4.1	34.5%	1,330	2.7	30.8%	6,821	2.7	55.8%
Logistics - Material Moving	314	3.2	44.8%	3,247	3.5	24.1%	13,490	3.6	48.8%
Logistics Support	116	4.1	82.6%	1,075	3.3	39.3%	4,614	3.2	75.5%
Maintenance	155	2.6	32.4%	1,710	3.2	28.0%	7,558	3.4	48.6%
Metals & Plastics	290	2.9	28.6%	3,058	3.3	25.9%	11,577	3.4	46.0%
Paper	46	2.5	9.3%	324	2.9	11.6%	1,094	3.2	15.9%
Supplemental	296	2.9	31.8%	3,979	3.6	28.3%	18,177	3.7	41.0%

Reading the Graphic

- The tables at left show occupational supply and demand data for key occupational categories at 20-, 40-, and 60-minute drivetimes.
- The supply statistics use standard measurements of occupational presence, concentration, and 5-year projected growth. Demand metrics are based on job postings analysis.
- Green shaded cells are more favorable; on the supply side, those clusters have a relatively stronger concentration compared to U.S. levels. On the demand side, those clusters have relatively lower demand indicators.

Key Takeaways: Supply

- High concentration of the following skillsets at all three drivetime intervals: Production, Chemical, Foundry, Metals & Plastics, and Paper.
- Growth metrics are favorable at all drivetimes.
- Unsurprisingly, the sheer number of workers in each cluster jumps, especially at 60-minutes.

Key Takeaways: Demand

- High competition for engineering workers (i.e. a lot of job postings relative to the number of engineers in the region).

Demand & Competition: Change over Time vs. U.S.

Job Postings Data & Change: Tulsa vs. U.S.

		Tulsa Metro Area		United States	
	Total Job Postings Last 12 months	1 Year Change	3 Year Change	1 Year Change	3 Year Change
All Production	8,988	-29.1%	-44.4%	-0.9%	-40.7%
Metal & Plastic Production	6,072	-28.2%	-43.4%	0.8%	-45.1%
Logistics - Support	2,378	-24.7%	-58.5%	-3.6%	-52.5%
Maintenance	3,640	-22.4%	-35.6%	-1.0%	-30.6%
Chemical Production	3,614	-20.7%	-49.3%	-0.4%	-46.7%
Information Technology	3,542	-15.8%	-74.0%	11.5%	-60.9%
Business	4,392	-10.5%	-32.2%	4.4%	-53.0%
Engineering	3,019	1.1%	-28.1%	5.1%	-39.4%
Logistics - Material Moving	6,597	6.2%	-47.3%	14.3%	-48.7%
Paper & Pulp Production	567	10.9%	-28.7%	-0.1%	-42.8%

Job postings in Tulsa have fallen more quickly over the last year compared to the U.S. overall.

Reading the Graphic

- Further, we look at the change in job postings over time to examine whether the region has seen increases or decreases in demand compared to the US. overall.
- We compare the Tulsa metro against the U.S. to see changes in job postings for each occupational cluster over the past year and three years.

Key Takeaways

- Job postings in the Tulsa metro area for clusters of interest have fallen more quickly over the past year compared to the U.S. overall, which is good for companies looking to grow and hire.
- Over the past three years, postings in both greater Tulsa and the U.S. have fallen from very high, post COVID levels.

Wage & Salary Summary: Primary & Secondary Data

Estimated Wage Levels - Primary Data

	Wage Workers (Overall)	Production	Logistics	Maintenance	Quality	Technician - Engineer	Salary Workers (Overall)	Supervisors
25th Percentile	$16.50	$16.39	$16.61	$24.04	$20.00	$22.29	$65,000	$52,460
Median	$20.63	$20.50	$19.00	$31.32	$24.72	$31.40	$86,213	$80,127
75th Percentile	$25.00	$24.00	$24.00	$37.97	$26.82	$35.76	$113,367	$102,203

Estimated Wage Levels - Secondary Data (ERI)

	Production	Logistics	Maintenance	Quality	Technician - Engineer
25th Percentile	$17.49	$16.87	$22.28	$18.20	$22.58
Median	$18.88	$18.33	$24.26	$20.09	$25.05
75th Percentile	$20.01	$19.55	$26.02	$21.87	$27.46

Reading the Graphic

- The table at top left shows key wage and salary thresholds for different occupational categories collected from employers in MAIP (primary data) .
- The table at bottom left shows example wage data for Pryor from a secondary data source (ERI).
- Because of a wide range of job titles and descriptions, SSG is not able to make these categories completely align with the SOC code classifications used in other portions of the report.
- *Source: MAIP employer data and ERI.*

Key Takeaways

- In SSG's experience, wages at MAIP are relatively low compared to what we see in other parts of the country. For example, we typically see starting wages for entry level production and logistics positions in the $18.00-$20.00 range; here, similar wages (represented by the 25th percentile data) are lower at around $16.50.
- Median wage levels for all positions are generally aligned with what we see as starting wages in other communities.

Wage & Salary Summary: Secondary Data

MAIP: Estimated Wage Levels - Secondary Data (ERI)

	Production	Logistics	Maintenance	Quality	Technician - Engineer
25th Percentile	$17.49	$16.87	$22.28	$18.20	$22.58
Median	$18.88	$18.33	$24.26	$20.09	$25.05
75th Percentile	$20.01	$19.55	$26.02	$21.87	$27.46

United States Average: Estimated Wage Levels - Secondary Data (ERI)

	Production	Logistics	Maintenance	Quality	Technician - Engineer
25th Percentile	$19.78	$19.58	$25.62	$20.56	$26.17
Median	$21.33	$21.21	$27.76	$22.69	$28.84
75th Percentile	$22.60	$22.59	$29.64	$24.66	$31.38

Reading the Graphic

- While primary data is important, we often find real time wage data more valuable. SSG also uses secondary wage databases to compare locations against one another.
- As a result, the table at left shows wages for Pryor, OK (MAIP) for example positions in each of the occupational categories as shown previously. We then compare those levels against the U.S. average
- *Source: ERI, 3-years' experience assumed.*

Key Takeaways

- Wages in MAIP are well below those for the U.S. overall.
- These wages from secondary sources are roughly aligned with results from the wage survey. However, SSG uses example job titles for ERI data (e.g. a "Manufacturing Associate" as a representative Production worker). The primary survey data includes a mix of lower and higher skilled workers. As a result, while the median wage levels are likely similar between the two sources, the 25th vs. 75th percentile data are not as comparable.

Wage & Salary: Additional Details

Estimated Wage Levels - Primary Data

	Production	Logistics	Maintenance	Quality	Technician - Engineer	All Wage Workers (Overall)
Minimum	$11.00	$10.00	$15.00	$14.00	$19.00	**$10.00**
10th Percentile	$14.50	$15.00	$20.39	$18.00	$20.20	**$14.50**
25th Percentile	$16.39	$16.61	$24.04	$20.00	$22.29	**$16.50**
50th Percentile	$20.50	$19.00	$31.32	$24.72	$31.40	**$20.63**
75th Percentile	$24.00	$24.00	$37.97	$26.82	$35.76	**$25.00**
90th Percentile	$29.32	$28.05	$42.26	$33.49	$41.74	**$33.06**
Maximum	$44.63	$37.61	$48.85	$34.49	$50.31	**$50.31**
Count of Workers in Sample	*653*	*111*	*75*	*41*	*43*	*1,086*

Reading the Graphic

- The table at left shows key wage and salary thresholds for different occupational categories collected from employers in MAIP (primary data) .
- Because of a wide range of job titles and descriptions, SSG is not able to make these categories completely align with the SOC code classifications used in other portions of the report.
- *Source: MAIP employer data and ERI.*

Comparative Wage Data: ERI

	Pryor	Tulsa	Diff. vs. Pryor	Muskogee	Diff. vs. Pryor	Claremore	Diff. vs. Pryor
Aircraft Mechanic Jet	$30.43	$33.93	11.5%	$30.36	-0.2%	$32.90	8.1%
Assembler Electromechanical	$21.08	$23.58	11.9%	$21.04	-0.2%	$22.91	8.7%
Assembler Team	$21.00	$23.49	11.9%	$20.96	-0.2%	$22.82	8.7%
Assembly Line Foreman	$27.53	$30.79	11.8%	$27.47	-0.2%	$29.85	8.4%
Avionics Mechanic	$31.09	$34.12	9.7%	$31.01	-0.3%	$33.09	6.4%
Biochemist	$46.65	$49.34	5.8%	$46.53	-0.3%	$48.01	2.9%
Biomedical Engineering Technician	$30.50	$34.18	12.1%	$30.43	-0.2%	$33.12	8.6%
Calibration Technician	$29.46	$32.80	11.3%	$29.39	-0.2%	$31.78	7.9%
Chemical Operator	$25.98	$28.93	11.4%	$25.92	-0.2%	$28.05	8.0%
Chemical Process Helper	$19.27	$21.32	10.6%	$19.23	-0.2%	$20.75	7.7%
CNC Machine Operator	$23.65	$26.31	11.2%	$23.60	-0.2%	$25.53	7.9%
CNC Programmer	$34.67	$38.45	10.9%	$34.59	-0.2%	$37.29	7.6%
Cutter Operator	$20.04	$22.21	10.8%	$20.00	-0.2%	$21.60	7.8%
Electrical Drafter	$33.40	$37.31	11.7%	$33.32	-0.2%	$36.17	8.3%
Electromechanical Technician	$33.67	$37.60	11.7%	$33.58	-0.3%	$36.45	8.3%
Electronics Assembler	$19.22	$21.45	11.6%	$19.18	-0.2%	$20.86	8.5%
Electronics Assembler (Precision)	$21.08	$23.58	11.9%	$21.04	-0.2%	$22.91	8.7%
Food Process Worker	$15.28	$16.68	9.2%	$15.25	-0.2%	$16.28	6.5%
Food Science Technician	$21.91	$24.40	11.4%	$21.86	-0.2%	$23.69	8.1%
Forklift Operator	$19.46	$21.60	11.0%	$19.42	-0.2%	$21.01	8.0%
Logistics Supervisor	$27.80	$31.33	12.7%	$27.74	-0.2%	$30.37	9.2%
Machinist Computer-Aided	$25.27	$28.14	11.4%	$25.22	-0.2%	$27.29	8.0%
Machinist General	$23.84	$26.90	12.8%	$23.79	-0.2%	$26.09	9.4%
Maintenance Assistant	$18.44	$20.20	9.5%	$18.40	-0.2%	$19.64	6.5%
Maintenance Engineer	$29.11	$33.06	13.6%	$29.04	-0.2%	$32.04	10.1%
Maintenance Machinist	$25.52	$28.79	12.8%	$25.46	-0.2%	$27.91	9.4%
Mathematical Technician	$40.65	$42.14	3.7%	$40.54	-0.3%	$40.97	0.8%
Mechanical Engineering Technician	$29.11	$32.66	12.2%	$29.05	-0.2%	$31.64	8.7%
Metal Fabricator	$23.37	$26.17	12.0%	$23.32	-0.2%	$25.39	8.6%
Packager Hand	$16.24	$18.05	11.1%	$16.21	-0.2%	$17.61	8.4%
Packaging/Filling Operator	$17.84	$19.69	10.4%	$17.81	-0.2%	$19.18	7.5%
Printing Plate Mounter	$18.77	$20.85	11.1%	$18.73	-0.2%	$20.28	8.0%
Printing Supervisor	$32.51	$36.20	11.4%	$32.43	-0.2%	$35.11	8.0%
Production Foreman	$28.27	$31.61	11.8%	$28.21	-0.2%	$30.63	8.3%
Production Worker Food	$15.45	$16.87	9.2%	$15.42	-0.2%	$16.46	6.5%
Rolling Attendant	$20.69	$23.31	12.7%	$20.65	-0.2%	$22.64	9.4%
Sanitation Supervisor	$30.58	$34.12	11.6%	$30.51	-0.2%	$33.08	8.2%
Sawmill Worker	$16.35	$18.07	10.5%	$16.31	-0.2%	$17.62	7.8%
Supervisor Administrative	$25.50	$28.92	13.4%	$25.45	-0.2%	$28.04	10.0%
Supply Clerk	$19.29	$21.41	11.0%	$19.25	-0.2%	$20.84	8.0%
Technician Chemical Engineering	$31.79	$35.58	11.9%	$31.71	-0.3%	$34.48	8.5%
Welder	$25.39	$28.64	12.8%	$25.33	-0.2%	$27.77	9.4%
Average	**$25.41**	**$28.21**	**11.0%**	**$25.35**	**-0.2%**	**$27.38**	**7.8%**

Reading the Graphic

- The chart at left shows average wage data from a key secondary source, ERI, that is helpful for cross market comparisons.
- This data is available at a city level, and assumes the exact same skill set and job requirements in each location. As a result, it is a true apples-to-apples comparison.
- This list incudes a mix of different types of industrial job titles that SSG typically sees in a diverse industrial park.
- We show data for Pryor (MAIP) vs. regional comparison locations like Tulsa, Muskogee, and Claremore.
- *Source: ERI*

Key Takeaways

- Based on ERI data, wages for similar positions in Tulsa are on average 11.0% higher than in Pryor.
- Wages compared to Muskogee are generally similar.
- And wages in Claremore are estimated at about 8% higher than Pryor.

Comparative Wage Data: Lightcast (1 of 2)

SOC	Description	Mayes County (MAIP)	Tulsa County	Diff. vs. Mayes	Muskogee County	Diff. vs. Mayes	Rogers County (Claremore)	Diff. vs. Mayes
17-3010	Drafters	$24.94	$33.02	32.4%	$25.57	2.5%	$32.71	31.2%
17-3020	Engineering Technologists and Technicians, Except Drafters	$29.52	$32.40	9.8%	$36.71	24.4%	$33.07	12.0%
17-3030	Surveying and Mapping Technicians	$13.98	$22.34	59.8%	$15.27	9.3%	$24.22	73.3%
49-1010	First-Line Supervisors of Mechanics, Installers, and Repairers	$34.10	$37.16	9.0%	$33.06	-3.1%	$35.87	5.2%
49-2090	Miscellaneous Electrical and Electronic Equipment Mechanics, Installers, and Repairers	$23.32	$24.57	5.3%	$21.71	-6.9%	$25.81	10.7%
49-3010	Aircraft Mechanics and Service Technicians	$44.83	$38.27	-14.6%	$45.08	0.6%	$38.79	-13.5%
49-3030	Bus and Truck Mechanics and Diesel Engine Specialists	$22.03	$27.72	25.8%	$22.90	4.0%	$27.16	23.3%
49-3040	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	$24.30	$28.93	19.1%	$23.87	-1.8%	$27.81	14.5%
49-3050	Small Engine Mechanics	$19.50	$24.68	26.6%	$22.29	14.3%	$24.33	24.8%
49-3090	Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	$14.90	$17.19	15.4%	$15.39	3.3%	$19.15	28.6%
49-9020	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	$24.18	$25.86	7.0%	$20.23	-16.4%	$23.24	-3.9%
49-9040	Industrial Machinery Installation, Repair, and Maintenance Workers	$30.28	$31.15	2.9%	$30.30	0.1%	$29.12	-3.8%
49-9060	Precision Instrument and Equipment Repairers	$21.16	$23.49	11.1%	$20.64	-2.4%	$20.85	-1.4%
49-9070	Maintenance and Repair Workers, General	$18.87	$21.59	14.4%	$18.23	-3.4%	$21.03	11.4%
51-1010	First-Line Supervisors of Production and Operating Workers	$31.94	$33.66	5.4%	$32.06	0.4%	$33.05	3.5%
51-2020	Electrical, Electronics, and Electromechanical Assemblers	$16.22	$20.96	29.2%	$16.40	1.1%	$21.03	29.6%
51-2030	Engine and Other Machine Assemblers	$22.40	$29.43	31.4%	$20.95	-6.5%	$29.61	32.2%
51-2040	Structural Metal Fabricators and Fitters	$23.64	$24.17	2.2%	$23.47	-0.7%	$23.49	-0.6%
51-2050	Fiberglass Laminators and Fabricators	$20.14	$17.59	-12.7%	$20.22	0.4%	$18.40	-8.6%
51-2090	Miscellaneous Assemblers and Fabricators	$17.96	$19.03	5.9%	$17.75	-1.2%	$19.82	10.3%
51-3010	Bakers	$15.06	$15.16	0.7%	$13.04	-13.4%	$13.37	-11.2%
51-3020	Butchers and Other Meat, Poultry, and Fish Processing Workers	$14.47	$17.08	18.0%	$13.47	-6.9%	$15.38	6.3%
51-3090	Miscellaneous Food Processing Workers	$17.10	$15.36	-10.2%	$16.93	-1.0%	$14.57	-14.8%
51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	$21.72	$22.89	5.4%	$21.91	0.9%	$21.98	1.2%
51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	$19.51	$21.40	9.7%	$19.92	2.1%	$21.18	8.6%
51-4040	Machinists	$20.29	$25.68	26.5%	$23.05	13.6%	$25.45	25.4%
51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	$21.33	$22.31	4.6%	$20.86	-2.2%	$20.35	-4.6%
51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	$16.79	$17.65	5.1%	$16.84	0.3%	$19.45	15.8%
51-4080	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	$20.79	$21.70	4.4%	$21.07	1.3%	$22.06	6.1%
51-4110	Tool and Die Makers	$27.81	$31.14	12.0%	$29.88	7.4%	$31.52	13.3%
51-4120	Welding, Soldering, and Brazing Workers	$21.30	$24.79	16.4%	$21.44	0.6%	$24.50	15.0%
51-4190	Miscellaneous Metal Workers and Plastic Workers	$21.12	$23.25	10.1%	$21.24	0.6%	$23.36	10.6%
51-5110	Printing Workers	$18.58	$18.74	0.8%	$16.98	-8.6%	$16.27	-12.4%

Reading the Graphic

- The chart at left shows median wage data by county for Mayes County (MAIP) vs. other surrounding counties.
- This data is shown by 4-digit SOC for typical industrial positions found in a diversified industrial park. We've removed SOC codes with limited or no wage data.
- Please note that this data does not take into account skill differences. For example, "Welders" in Tulsa may be working in more skill intensive industries than "Welders" in Muskogee, and as a result, the Tulsa welders may be earning higher wages. In other words, this is not necessarily an apples-to-apples comparison.
- However, in aggregate, SSG finds that these comparisons give a good sense of overall wage comparisons across communities.
- See next slide for continuation and summary.
- *Source: Lightcast*

Comparative Wage Data: Lightcast (2 of 2)

SOC	Description	Mayes County (MAIP)	Tulsa County	Diff. vs. Mayes	Muskogee County	Diff. vs. Mayes	Rogers County (Claremore)	Diff. vs. Mayes
51-6010	Laundry and Dry-Cleaning Workers	$12.29	$13.48	9.7%	$11.48	-6.6%	$13.07	6.4%
51-6020	Pressers, Textile, Garment, and Related Materials	$15.05	$13.43	-10.7%	$12.25	-18.6%	$13.80	-8.3%
51-6030	Sewing Machine Operators	$15.41	$17.13	11.2%	$14.87	-3.5%	$16.90	9.7%
51-6040	Shoe and Leather Workers	$17.39	$19.93	14.6%	$15.31	-12.0%	$22.13	27.3%
51-6050	Tailors, Dressmakers, and Sewers	$21.89	$24.32	11.1%	$21.96	0.3%	$23.48	7.3%
51-6060	Textile Machine Setters, Operators, and Tenders	$16.41	$21.49	30.9%	$12.89	-21.4%	$19.63	19.6%
51-6090	Miscellaneous Textile, Apparel, and Furnishings Workers	$17.53	$23.20	32.3%	$18.74	6.9%	$19.89	13.4%
51-7010	Cabinetmakers and Bench Carpenters	$18.66	$18.01	-3.5%	$16.84	-9.8%	$19.30	3.4%
51-7040	Woodworking Machine Setters, Operators, and Tenders	$15.90	$17.80	11.9%	$15.09	-5.1%	$16.84	5.9%
51-8010	Power Plant Operators, Distributors, and Dispatchers	$33.67	$40.66	20.8%	$34.95	3.8%	$43.85	30.2%
51-8020	Stationary Engineers and Boiler Operators	$33.48	$32.45	-3.1%	$29.65	-11.4%	$32.35	-3.4%
51-8030	Water and Wastewater Treatment Plant and System Operators	$17.52	$24.91	42.2%	$16.68	-4.8%	$25.66	46.5%
51-8090	Miscellaneous Plant and System Operators	$42.94	$51.04	18.9%	$43.69	1.7%	$39.05	-9.1%
51-9010	Chemical Processing Machine Setters, Operators, and Tenders	$25.79	$27.28	5.8%	$26.54	2.9%	$28.12	9.1%
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	$19.89	$17.92	-9.9%	$20.29	2.0%	$16.53	-16.9%
51-9030	Cutting Workers	$17.52	$17.70	1.0%	$17.60	0.5%	$16.82	-4.0%
51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	$28.22	$17.75	-37.1%	$28.19	-0.1%	$17.15	-39.2%
51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	$17.97	$22.73	26.5%	$17.91	-0.3%	$21.05	17.1%
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	$22.19	$27.39	23.4%	$22.13	-0.3%	$27.53	24.1%
51-9070	Jewelers and Precious Stone and Metal Workers	$16.74	$18.86	12.7%	$16.74	0.0%	$16.89	0.9%
51-9080	Dental and Ophthalmic Laboratory Technicians and Medical Appliance Technicians	$19.86	$19.52	-1.7%	$22.01	10.8%	$18.47	-7.0%
51-9110	Packaging and Filling Machine Operators and Tenders	$18.08	$19.04	5.3%	$17.01	-5.9%	$19.03	5.3%
51-9120	Painting Workers	$19.29	$21.89	13.5%	$20.26	5.1%	$22.18	15.0%
51-9140	Semiconductor Processing Technicians	$26.91	$30.70	14.1%	$26.91	0.0%	$34.25	27.3%
51-9150	Photographic Process Workers and Processing Machine Operators	$17.35	$14.89	-14.2%	$21.42	23.5%	$16.42	-5.4%
51-9160	Computer Numerically Controlled Tool Operators and Programmers	$20.05	$25.52	27.2%	$22.37	11.6%	$25.40	26.6%
51-9190	Miscellaneous Production Workers	$23.05	$20.76	-9.9%	$26.92	16.8%	$18.47	-19.9%
53-1040	First-Line Supervisors of Transportation and Material Moving Workers	$26.07	$30.26	16.1%	$26.35	1.1%	$29.41	12.8%
53-7050	Industrial Truck and Tractor Operators	$19.70	$21.59	9.5%	$19.03	-3.4%	$22.91	16.3%
53-7060	Laborers and Material Movers	$14.76	$17.08	15.8%	$14.17	-4.0%	$17.59	19.2%
	Average	**$21.68**	**$23.79**	**9.8%**	**$21.73**	**0.2%**	**$23.37**	**7.8%**

Key Takeaways

- Despite significant differences within specific SOC codes, this data show a very consistent result to the ERI data.
- Wages in Tulsa County are about 10% higher than those in Mayes County.
- Wages in Muskogee are very similar to those in Mayes County.
- And again, wages in Claremore are about 8% higher than those in Mayes County.

3. Other Factors

SITE SELECTION GROUP

3. Other Factors: Organized Labor & Training

Objective

- Organized Labor: Review organized labor presence and activity, as many prospective employers put significant emphasis on locating in regions with lower union presence.
- Workforce Training: Review key trends in educational completions for target workers.

Methodology

- Organized Labor: Review key organized labor metrics like presence, derived from the Current Population Survey via UnionStats, along with recent organizational attempts data from the National Labor Relations Board.
- Educational Completions: Review the number of students who have completed degrees, certificates, and/or diplomas in key disciplines related to industrial and manufacturing requirements. Please note that while this data is useful, it has weaknesses (e.g. completions can be assigned to a centralized office within a broader college system). Further, SSG believes that a qualitative analysis of the quality of workforce training providers derived through interviews and employer experience working with those programs and partners is much more Union Stats important in the site selection process. This report does not conduct that level of analysis.

Results

Key Strengths

- ✓ Low organized labor presence in greater Tulsa and Oklahoma more generally.
- ✓ Right-to-work status.
- ✓ Very large number of training completions in metal working, and specifically in welding.
- ✓ Favorable number of completions in engineering technology-related disciplines.

Challenges

- ✗ Decrease in overall maintenance and engineering technologies completions in recent years. However, that appears to be due to a major decline in completions from privately owned Spartan College of Aeronautics.

Organized Labor: Summary

Organized Labor Rates: Last Five Years

Overall

	2020	2021	2022	2023	2024	5 Year Avg.
Tulsa Metro Area	5.1%	5.5%	5.9%	6.1%	4.6%	5.4%
Oklahoma	6.0%	5.6%	5.5%	6.8%	5.4%	5.9%
U.S.	10.8%	10.3%	10.1%	10.0%	9.9%	10.2%

Private Employers

	2020	2021	2022	2023	2024	5 Year Avg.
Tulsa Metro Area	3.4%	2.5%	2.9%	3.5%	3.0%	3.1%
Oklahoma	3.8%	2.7%	2.6%	3.0%	2.5%	2.9%
U.S.	6.3%	6.1%	6.0%	6.0%	5.9%	6.1%

Manufacturing

	2020	2021	2022	2023	2024	5 Year Avg.
Tulsa Metro Area	1.9%	0.0%	4.8%	6.5%	3.2%	3.3%
Oklahoma	5.3%	4.1%	5.5%	5.7%	2.7%	4.7%
U.S.	8.5%	7.6%	7.8%	7.9%	7.8%	7.9%

Reading the Graphic

- The tables at left show the percentage of unionized workers for different types of industry categorizations, from all workers, to private employers, to manufacturing.
- This data does not cut at a highly local geography, so we use the greater Tulsa metro area as our indicator of organized labor activity in and around MAIP.
- Further, because of how this data is collected (i.e. a national survey where sampling can get very small for specific markets in specific categories), we encourage readers to look at the 5-year average, rather than just individual years.
- *Source: CPS via Union Stats.*

Key Takeaways

- Organized labor rates in Tulsa have generally tracked rates in Oklahoma, while both are well below the national rates in all categories.
- Further, as a Right-to-Work state, Oklahoma and greater Tulsa have lower organized labor presence compared to the nation overall.

Educational Completions: Summary

Maintenance & Engineering Technologies Completions: Last 10 Years within 1 Hour of MAIP

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Electrical/Electronics Maintenance and Repair Technologies	5	7	12	6	2	3	76	84	92	87
Mechanical Engineering Related Technologies/Technicians	215	45	263	33	42	21	32	26	63	75
Electromechanical Technologies/Technicians	77	256	82	314	343	234	191	60	69	68
Quality Control and Safety Technologies/Technicians	235	266	327	316	301	249	136	145	109	52
Electrical/Electronic Engineering Technologies/Technicians	47	45	24	28	14	15	16	19	15	21
Industrial Production Technologies/Technicians	1	1	0	0	0	5	0	1	2	4
Environmental Control Technologies/Technicians	5	2	5	7	4	0	12	15	0	0
Heavy/Industrial Equipment Maintenance Technologies/Technicians	0	0	0	0	0	0	0	0	0	0
TOTAL	**585**	**622**	**713**	**704**	**706**	**527**	**463**	**350**	**350**	**307**

Precision Production Completions: Last 10 Years within 1 Hour of MAIP

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Welding Technology/Welder	1,076	1,061	1,135	987	1,123	795	922	956	864	905
Machine Tool Technology/Machinist	35	24	33	32	42	31	43	45	48	34
Computer Numerically Controlled Machinist Technology/CNC Machinist	0	0	0	0	16	24	33	70	37	24
Metal Fabricator	0	0	0	0	24	16	54	23	17	24
Machine Shop Technology/Assistant	79	68	53	89	27	2	16	7	6	10
Sheet Metal Technology/Sheetworking	0	0	0	0	0	0	0	0	0	0
Tool and Die Technology/Technician	0	0	0	0	0	0	0	0	0	0
Precision Metal Working, Other	0	0	0	0	0	0	0	0	0	0
Precision Production, Other	0	0	0	0	0	0	0	0	0	0
TOTAL	**1,190**	**1,153**	**1,221**	**1,108**	**1,232**	**868**	**1,068**	**1,101**	**972**	**997**

Reading the Graphic

- The graphics at left show completion data (i.e. degrees, certificates, and diplomas) for two key educational categories for industrial requirements: Maintenance & Engineering Technologies, and Precision Production.
- The data shows completions from institutions within 60 minutes of MAIP. We use this somewhat wider range because from time to time, while there may be a training institution nearby a location, the completions may be assigned to an alternative administrative facility.
- *Source: IPEDS via Lightcast.*

Key Takeaways

- The MAIP region continues to have a very large number of completions in Precision Production, and specifically in Welding. That's because of large training institutions in the region like Northeast Technology Center, Indian Capital, and Tulsa Tech, all parts of Oklahoma's Career Tech system. Privately operated Tulsa Welding School also puts out a large number of graduates.
- The data show a decrease in the number of relevant graduates in Maintenance and Engineering Technologies, specifically in Electromechanical and QC. However, on closer inspections, that's due to a sharp drop off in completions at privately operated Spartan College of Aeronautics. Completions at publicly operated Tulsa Tech have increased.

Appendix:
Occupation & Completion Categorizations

SITE SELECTION GROUP™

Production

PRODUCTION WORKERS (OVERALL)

SOC	Description
51-0000	Production Workers

PAPER/PULP PRODUCTION

SOC	Description
51-9196	Paper Goods Machine Setters, Operators, and Tenders
51-9198	Helpers--Production Workers
51-1011	First-Line Supervisors of Production and Operating Workers
51-5112	Printing Press Operators
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders
51-9111	Packaging and Filling Machine Operators and Tenders

FOUNDRY

SOC	Description
51-4052	Pourers and Casters, Metal
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4071	Foundry Mold and Coremakers
51-8013	Power Plant Operators
51-9011	Chemical Equipment Operators and Tenders

CHEMICAL PRODUCTION

SOC	Description
51-1011	First-Line Supervisors of Production and Operating Workers
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators
51-8099	Plant and System Operators, All Other
51-9011	Chemical Equipment Operators and Tenders
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9111	Packaging and Filling Machine Operators and Tenders
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
51-9198	Helpers--Production Workers
51-9199	Production Workers, All Other

METAL & PLASTIC-FOCUSED PRODUCTION

SOC	Description
51-1011	First-Line Supervisors of Production and Operating Workers
51-2041	Structural Metal Fabricators and Fitters
51-2098	Assemblers and Fabricators, All Other, Including Team Assemblers
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4041	Machinists
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9198	Helpers--Production Workers
51-9199	Production Workers, All Other

Reading the Graphic

- The graphic at left shows the Standard Occupational Codes (SOC) used in this analysis.

Engineering & Maintenance

MAINTENANCE

SOC	Description
47-2111	Electricians
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery
49-9044	Millwrights
49-9051	Electrical Power-Line Installers and Repairers
49-9071	Maintenance and Repair Workers, General

ENGINEERING

SOC	Description
11-3051	Industrial Production Managers
11-9041	Architectural and Engineering Managers
17-2041	Chemical Engineers
17-2071	Electrical Engineers
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-3013	Mechanical Drafters
17-3023	Electrical and Electronics Engineering Technicians
17-3024	Electro-Mechanical Technicians
17-3025	Environmental Engineering Technicians
17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technicians
17-3029	Engineering Technicians, Except Drafters, All Other

Reading the Graphic

- The graphic at left shows the Standard Occupational Codes (SOC) used in this analysis.

Logistics

LOGISTICS – MATERIAL MOVING (BLUE COLLAR)

SOC	Description
53-1048	First-line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors
53-7011	Conveyor Operators and Tenders
53-7051	Industrial Truck and Tractor Operators
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7063	Machine Feeders and Offbearers
53-7064	Packers and Packagers, Hand

LOGISTICS – SUPPORT (WHITE COLLAR)

SOC	Description
11-3071	Transportation, Storage, and Distribution Managers
13-1081	Logisticians
43-3061	Procurement Clerks
43-5011	Cargo and Freight Agents
43-5061	Production, Planning, and Expediting Clerks
43-5071	Shipping, Receiving, and Traffic Clerks

Reading the Graphic

- The graphic at left shows the Standard Occupational Codes (SOC) used in this analysis.

Professional Support

IT WORKERS

SOC	Description
11-3021	Computer and Information Systems Managers
15-1111	Computer and Information Research Scientists
15-1121	Computer Systems Analysts
15-1122	Information Security Analysts
15-1131	Computer Programmers
15-1132	Software Developers, Applications
15-1133	Software Developers, Systems Software
15-1134	Web Developers
15-1141	Database Administrators
15-1142	Network and Computer Systems Administrators
15-1143	Computer Network Architects
15-1151	Computer User Support Specialists
15-1152	Computer Network Support Specialists
15-1199	Computer Occupations, All Other
15-2021	Mathematicians
15-2031	Operations Research Analysts
15-2041	Statisticians
17-2061	Computer Hardware Engineers
43-9011	Computer Operators

BUSINESS SUPPORT

SOC	Description
13-2011	Accountants and Auditors
15-2011	Actuaries
43-3031	Bookkeeping/Accounting/Auditing Clerks
13-2031	Budget Analysts
13-2041	Credit Analysts
13-2051	Financial Analysts
13-2061	Financial Examiners
11-3031	Financial Managers
13-2099	Financial Specialists, All Other
41-3031	Securities, Commodities & Financial Services Sales Agents
13-2081	Tax Examiners and Collectors, and Revenue Agents
13-2082	Tax Preparers
19-3011	Economists
13-1041	Compliance Officers
13-1111	Management Analysts
13-2051	Financial Analysts
15-2021	Mathematicians
15-2031	Operations Research Analysts
15-2041	Statisticians

Reading the Graphic

- The graphic at left shows the Standard Occupational Codes (SOC) used in this analysis.

Educational Completions

PRECISION PRODUCTION

CIP	Description
48.0501	Machine Tool Technology/Machinist
48.0503	Machine Shop Technology/Assistant
48.0506	Sheet Metal Technology/Sheetworking
48.0507	Tool and Die Technology/Technician
48.0508	Welding Technology/Welder
48.051	Computer Numerically Controlled (CNC) Machinist Technology/CNC Machinist
48.0511	Metal Fabricator
48.0599	Precision Metal Working, Other
48.9999	Precision Production, Other

INDUSTRIAL MAINTENANCE & ENGINEERING TECHNOLOGIES

CIP	Description
15.03	Electrical/Electronic Engineering Technologies/Technicians
15.04	Electromechanical Technologies/Technicians
15.05	Environmental Control Technologies/Technicians
15.06	Industrial Production Technologies/Technicians
15.07	Quality Control and Safety Technologies/Technicians
15.08	Mechanical Engineering Related Technologies/Technicians
47.01	Electrical/Electronics Maintenance and Repair Technologies/Technicians
47.03	Heavy/Industrial Equipment Maintenance Technologies/Technicians

Reading the Graphic

- The graphic at left shows the Completion Codes (CIP) used in this analysis.

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